

295-X

FPSO swivel

Description

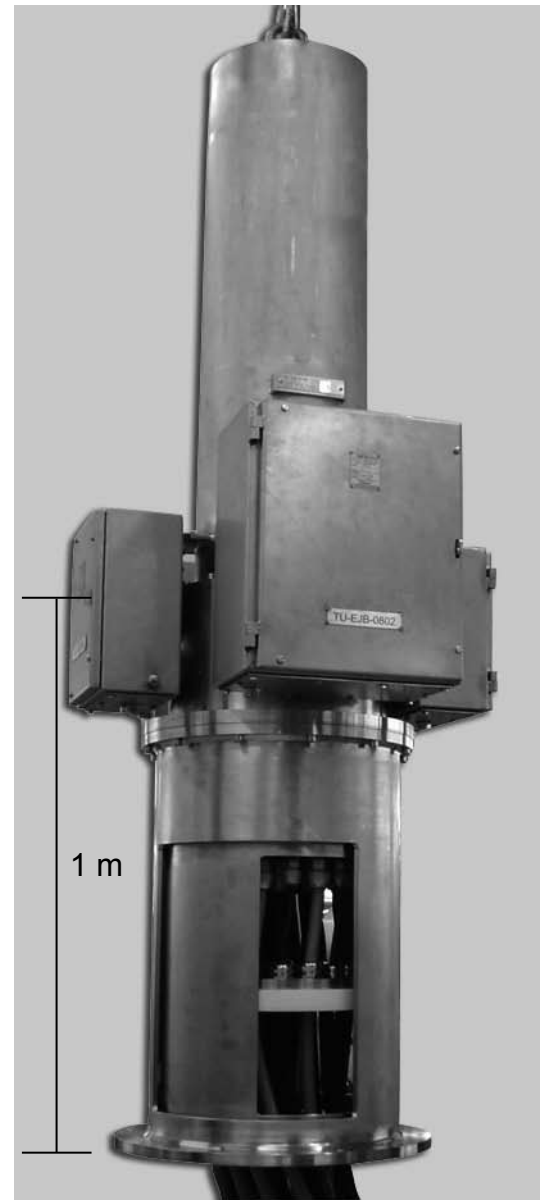
The 295-X is a standardized electrical / optical slip ring designed for the offshore oil industry. This design is type certified for hazardous area environments allowing for shorter design customization and assembly time. Available in sizes ranging to a maximum overall length of approximately 140 inches (3.5 m) and overall diameter of 12 inches (300 mm), this model meets the needs to transfer utility power, electrical and optical signals on a variety of offshore swivel applications.

Features

- 316 stainless steel housing available for corrosion resistance
- Hazardous area certified in accordance with European Community ATEX directive 94 / 9 / EC
- Standardized design can accommodate variety of cable entry methods

Benefits

- Each unit is designed, manufactured, and tested in accordance with the highest quality standards
- Integration with fiber optic rotary joints and fluid rotary unions to provide a complete rotating interface solution
- Design customization to meet both customer and marine authority specifications



Typical Applications

- CALM buoy
- Submerged turret loading vessel
- FPSO swivel stacks

FPSO Swivels

Electrical

295-X is rated in accordance with customer requirements

Voltage Maximum 5000 VAC

Current Designed to customer specifications

Electrical Power Performance

295-X power performance is design in accordance with customer specifications and Certifying Authority requirements

Flashover Voltage Typically 4x V_{rated}

Insulation Resistance This will vary depending on design specifications. Contact factory for further details.

Short Circuit Rating

Electrical Signal Performance

Contact Resistance 20 mΩ nominal

Insulation Resistance¹ Minimum 500 MΩ @ 1 kVDC

Insertion Loss² (Nominal) RG59 coax 1.5 dB maximum up to 30 MHz

Crosstalk² (Nominal) RG59 coax -15 dB maximum up to 30 MHz

¹ Value dependent on wire type.

² Performance depends on configuration of signal circuits.

Mechanical

Rotation Speed Maximum 50 rpm continuous¹

Protection Class IP 66

Operating Temperature -20 °C to + 55 °C

Housing Stainless steel (304)

Length "L" Varies with number of electrical passes

¹ Higher rotational speeds possible. Please consult factory.

Hazardous Area Option: 295-X

KEMA Designation for ATEX certified unit.

ATEX CE Ⓜ II 2 G Ex d IIB T5

Terminations

Standard Integral armoured cables on the geo stationary side, increased safety junction boxes on the rotating side

Special¹ Supply and installation of connectors, terminals, conduit, cable, glands, junction boxes

¹ Integration of customer supplied product possible

Additional Options

Fiber Optics Fiber Optic Rotary Joint (FORJ) or Optical Converter

Fluid Fluid Rotary Union (FRU)

Design Certification ABS, DNV, BV, LRS

Submersed Applications Fluid filling fittings or fluid filled / pressure compensated at factory

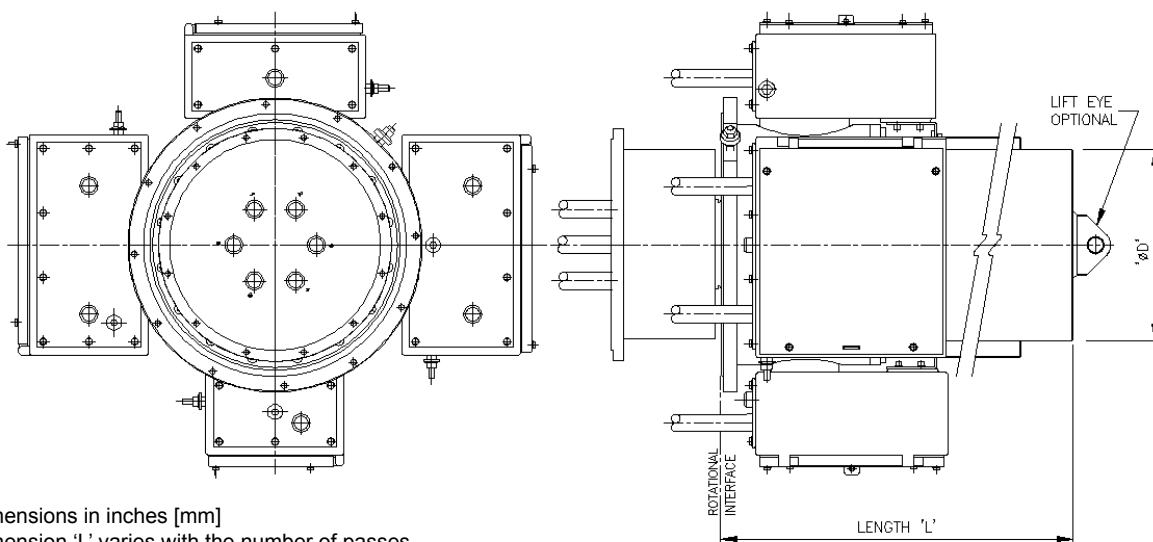
Other Devices¹ RF Rotary Joint, Shaft Encoder, Sensors, Heat Trace Cable

Ingress Protection IP 68

Extended Temperature Range

¹ Integration of customer supplied product possible

FO295-X Dimensions



1. Dimensions in inches [mm]
2. Dimension 'L' varies with the number of passes
3. Dimension 'Ø D' maximum 12.75 [323.8]
4. Customer interface and drive arrangement may vary.